

Delivering leading edge, innovative power solutions for more than **30** years....

Model:GTM41133-90VV-x.x-T3A

December 16, 2019

## IEC 60601-1-11 & 60601-1-2 4th Edition, 60950-1, and UL1310 Compliant 90W Medical power supply (and Class 2 Power Unit) available in 12-48V outputs

### Information

Model Number GTM41133-90VV-x.x-T3A

Description On 7/9/14, the FDA added the 4th edition of IEC 60601-1-2 to the list of standards that can be used to show EMC compliance for medical electrical devices and systems. The GTM41133 is certified compliant and additionally qualified as a Class 2 power Unit.

Model Picture



Agency

Documents <http://globtek.info/certs/GTM41133/>

CE

EC-Declaration [https://www.globtek.com/pdf/ec\\_declaration/a0Oa000000HSxmYEAT](https://www.globtek.com/pdf/ec_declaration/a0Oa000000HSxmYEAT)

RoHS/RoHS2

Declaration [https://www.globtek.com/pdf/rohs\\_cert/a0Oa000000HSxmYEAT](https://www.globtek.com/pdf/rohs_cert/a0Oa000000HSxmYEAT)

REACH

Declaration [https://www.globtek.com/pdf/iso\\_certificates/REACH.pdf](https://www.globtek.com/pdf/iso_certificates/REACH.pdf)

Conflict

Minerals

Declaration <https://www.globtek.com/pdf/conflict-minerals.pdf>

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**Model Parameters**

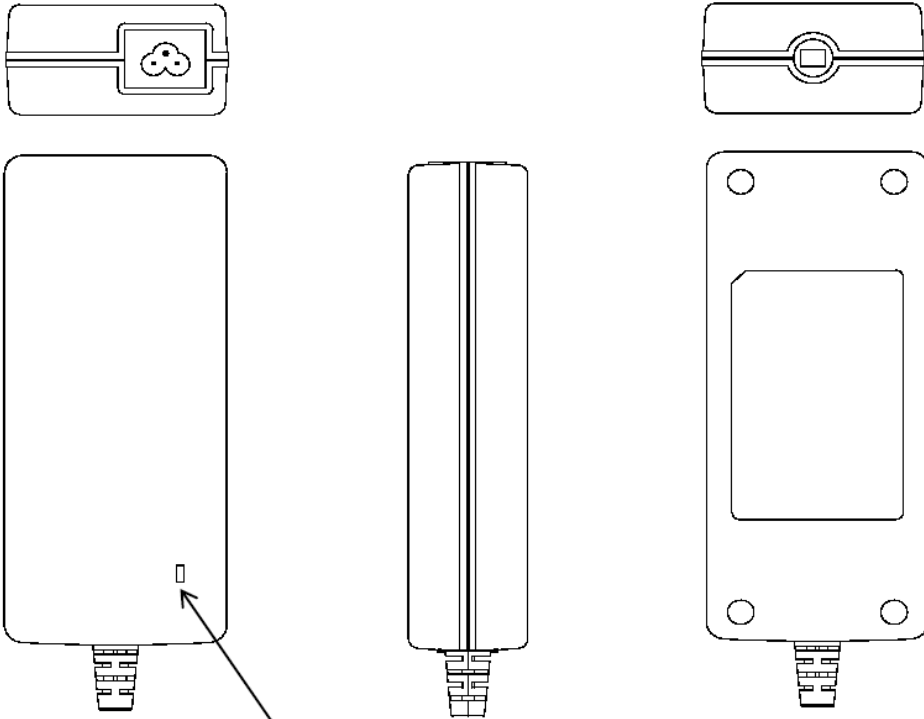
Type	Desktop/External
Technology	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	ITE / Medical Power Supply
Input Voltage	100-240V~, 50-60Hz
I/P Amps (A)	1.5A
Wattage (W)	90.0
Vout Range (V)	12-48
Efficiency Level	V
Ingress Protection	IP21
Size (mm)	149.38 x 62.6 x 33.5 +/-1.0 mm

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ENCLOSURE



LED INDICATOR  
GREEN = "ON"

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**RATING TABLE**

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM41133-9016-4.0-T3A	12 V	7.5	90.00	<a href="#">RFQ</a>
GTM41133-9016-1.0-T3A	15 V	6	90.00	<a href="#">RFQ</a>
GTM41133-9024-5.0-T3A	19 V	4.73	89.87	<a href="#">RFQ</a>
GTM41133-9024-4.0-T3A	20 V	4.5	90.00	<a href="#">RFQ</a>
GTM41133-9024-T3A	24 V	3.75	90.00	<a href="#">RFQ</a>
GTM41133-9035-5.0-T3A	30 V	2.3	69.00	<a href="#">RFQ</a>
GTM41133-9048-15-T3A	33 V	2.72	89.76	<a href="#">RFQ</a>
GTM41133-9048-12.0-T3A	36 V	2.5	90.00	<a href="#">RFQ</a>
GTM41133-9048-10.5-T3A	37.5 V	2.4	90.00	<a href="#">RFQ</a>
GTM41133-9048-T3A	48 V	1.875	90.00	<a href="#">RFQ</a>

**SPECIFICATIONS****A) ELECTRICAL SPECIFICATIONS:**

01. Input Voltage: Specified 90-264 Vac, Nameplate rated: 100-240Vac
02. Input Frequency: Specified 47-400 Hz, Nameplate rated 50-60Hz
03. Output Regulation: +/- 5% measured at the output connector
04. Line Voltage Regulation: +/- 1% typical measured at full load
05. Output Ripple (Vp-p): +/-1% or 150 mV whichever is greater, measured at 20 MHz bandwidth with 0.1 uf ceramic capacitor in parallel with 10 uf electrolytic capacitor connected at the end of the output connector at nominal line
06. Turn-ON/OFF Overshoot: 5% maximum, 1 mS typical recovery time for 25% to 50% step load
07. Turn-ON Delay: 1 sec, maximum @ full load, nominal line
08. Hold-Up Time: 8 mS typical @ nominal input voltage and full load
09. Inrush Current: 30/60A maximum cold start @ 115/230Vac input
10. Switching Frequency: 65 KHz typical

**B) PROTECTION**

01. Over-Voltage: Electronically Protected Zener clamp across the output
02. Short Circuit: Electronically Protected unit will auto recover upon removal of fault
03. Input Protection: Input line fusing

**C) SAFETY**

01. Dielectric Withstand Voltage: 5656Vdc from primary to secondary
02. Earth Leakage Current: Did not exceed 5 mA in NORMAL CONDITION and 10 mA in SINGLE FAULT CONDITION
03. Earth continuity test: <0.1 Ohm or < 0.2 Ohm when with a non-detachable Power Supply cord, Class I Only
- 04 Touch Current: Did not exceed 100uA NC(Normal condition) 500uA SFC(single fault condition)
05. Primary to Secondary Isolation: 2 MOPP

**D) OTHER:**

01. MTBF: 200,000 Hours @ 25°C ambient temperature
02. Operating Temperature: 0°C to 40°C ambient temperature
03. Humidity: 0% to 90% relative humidity
04. Storage Temperature: -20°C to 80°C
05. Cooling: Convection
06. Operating Altitude: 5,000 METERS
07. Operating Atmospheric Pressure: 700 hPa TO 1060hPa

**E) ENCLOSURE**

01. Housing: High impact plastic, 94V0 polycarbonate, non-vented
02. Size: 149.38 x 62.6 x 33.5 +/-1.0 mm
03. LED to indicate "Power Out"
04. Markings: Label and/or Pad Printed and/or Molded in the case

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DERATING CURVE

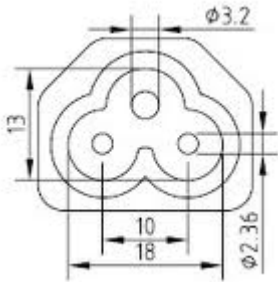
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**Input Configuration**

Description IEC 60320/C6 AC Inlet Connector, Class I, Earth Ground ( aka "Mickey Mouse")



Mates with IEC 60320/C5 Plug

**Standard International IEC 320/C5 Cordsets**

Below are standard cordsets which are "not included" (unless stated above); these can be purchased separately or package with the power supply. Contact your Sales Engineer if the style required is not shown below. Many more available in different lengths, colors or cable material.

Part Number / Link	Country	Plug	Connector	Length (mm)	Length (ft)
<a href="#">3021066F712(R)</a>	N. American (Type B)	NEMA 5-15P	IEC 320/C5	1880	6
<a href="#">1191068F0712(R)</a>	N. American (Type B)	NEMA 5-15P Hospital	IEC 320/C5	2459	8
<a href="#">2194262M0712(R)</a>	Argentina (Type I)	IRAM 2073	IEC320/C5	2050	6.7
<a href="#">2064262M0712(R)</a>	Australian (Type I)	AS3112 / 3 PRONG	IEC 320/C5	2000	6.6
<a href="#">204B4262M0712(R)</a>	Brazil (Type N)	BRAZIL	IEC 320/C5	2000	6.6
<a href="#">6023592M5712(R)</a>	China (Type I)	CCC GR2099	IEC 320/C5	2500	8
<a href="#">23144262M0712(R)</a>	Europe (Type E)	CEE 7/7	IEC 320/C5	2050	6.6
<a href="#">2313K3432M0712(R)</a>	Korea (Type F)	KS C 8305	IEC 320/C5	2000	6.6
<a href="#">205IN4262M0712(R)</a>	India (Type D)	India IS 1293 (also known as IA16A3 or BS546)	IEC320/C5	2000	6.6

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<a href="#">377C4262M0712(R)</a>	Israel (Type H)	ISL	IEC320/C5 2050	6.7
<a href="#">23024262M0712(R)</a>	Italy (Type L)	CEI 23-16/VII	IEC 320/C5 2000	6.6
<a href="#">3003316F0712(R)</a>	Japan (Type B)	JIS 8303 / 3 PINS	IEC 320/C5 1830	6
<a href="#">3021066F0712ULPSE(R)</a>	Japan / USA (Type B)	JIS 8303 / 3 PINS + NEMA 5-15P	IEC 320/C5 1830	6
<a href="#">2054262M0712(R)</a>	S. Africa (Type D)	South Africa SABS164-1 (6A type plug)	IEC320/C5 2050	6.7
<a href="#">2084262M0712(R)</a>	S.Africa (Type M)	South Africa SABS164-1 (16A type plug)	IEC 320/C5 2000	6.6
<a href="#">23214262M0712(R)</a>	Switzerland (Type J)	SEV 1011 ( EL 203)	IEC 320/C5 2000	6.6
<a href="#">3003316F0712(R)</a>	Taiwan (Type B)	BSMI	IEC 320/C5 2000	6.6
<a href="#">6104262M0712(R)</a>	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C5 2000	6.6



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**Output Configuration**

Common output connector options:


 L Type (Coaxial  
5.5x2.5mm plug)

 C Type (Coaxial  
5.5x2.1mm plug)

 K Type (Coaxial  
3.5x1.3mm plug)

 LL Type (5.5x2.5mm  
Locking 760k type)

 CL Type (5.5x2.1mm  
Locking S761k type)

 ML2 Type (Molex  
housing 43025-0200)


YL3 Type (KPPX-3P)



YL4 Type (KPPX-4P)


 EJ1/2/3/4/5 (EIAJ  
RC-5320A type  
connectors)


MSB Type (Micro USB)


 USBC Type (USB Type  
C)

 Inquire for custom  
design

 For a comprehensive list of options, [click here](#)






Contact GlobTek for your specific requirements or custom solutions.

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## Approvals

Logo	Description
	60601-1 3rd Operating Instructions
 R32282 RoHS (Pb)	Taiwan BSMI (GTM41133-9016-1.0-T3A); <a href="http://www.bsmi.gov.tw/wSite/ct?xItem=4072&amp;ctNode=8167=2">http://www.bsmi.gov.tw/wSite/ct?xItem=4072&amp;ctNode=8167=2</a>
No Logo Applicable No Logo	CB report IEC60601-1 2005 A1+C1+C2 2016-2-4 and or EN 60601-1:2006 3.1rd Edition 2xMOPP IEC 60601-1: 2005 +A1 and IEC 60601-1-11:2015
No Logo Applicable	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
No Logo	CB Certificate IEC 60950-1:2005 (2nd Edition), Am 1: 2009, CB report IEC 60950-1:2005 (2nd Edition), Am 1: 2009 and EN 60950-1:2006 + Am 1:2010 + Am 11:2009 + Am 12:2011
	CCC Altitude up to 5000 m GB17625.1-2012, GB4943.1-2011, GB/T9254-2008
	CE Certification CE Mark: tested to comply with EN 55032.2012+AC.2013 EN 61000-3-2.2014 EN 61000-3-3.2013 EN 60601-1-2.2015 EN 55024.2010
	CE Mark: tested to comply with EN55022:2006/A1:2007 Class B, EN610003-2, EN610003-3 including EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6N EN61000-4-11; EMI: Complies with EN55011 CLASS B and FCC Part 15B - On label or Molded in case
	CE Mark: tested to comply with EN 60601-1-2:2015 Medical electrical equipment Part 1-2: - Mark is on the label or Molded in the case
Conforms to ANSI/AAMI ES 60601-1:2005 Cert.to CAN/CSA Std. C22.2	cETLus ANSI_AAMI ES60601-1_2005
Conforms to ANSI/UL Std. 60950-1 Cert.to CAN/CSA Std. C22.2 NO. 60950-1	Conforms to ANSI/UL Std. 60950-1 2nd Edition Cert. to CAN/CSA Std.C22.2 NO.60950-1 2nd Edition
 Intertek 4007497	cETLus-Cert-4007497 ANSI/AAMI ES60601-1:2005 with AMD C1: 2009, AMD C2: 2010 and CAN/CSA-C22.2 No. 60601-1 2008 with COR 2:2011+ANSI/AAMI HA60601-1-11 Ed:1
	CHINA SJ/T 11364-2014, China RoHS Chart: <a href="http://en.globtek.com/globtek-rohs.php">http://en.globtek.com/globtek-rohs.php</a>
	Certification # TC RU AR46.B.75423 Custom Union of Russia, Belarus and Kazakhstan
 Intertek	Information Technology Equipment Safety Part 1: General Requirements >Valid without technical revision: 01Jan2022< [UL 60950-1:2007 Ed.2 +R:14Oct2014]
	Indoor Use Only - Mark is on the label or Molded in the case

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IP21	Ingress Protection: IP21 to IEC60529:2001 Protected against solids objects over 12mm and Protected against vertically falling drops of water
	
<b>DC-E-G71-001.14</b>	
PRECAUCION: PARA USO ENIRAM certificate DC-E-G71-001.14 to IEC 60950-1:2005 + A1:2009 +A2:2013 EQUIPOS ELECTRONICOS SOLAMENTE	
	JAPAN TUV R-PSE, Cert. No. JD 50313287, to J60950-1(H26) , J55022(H22),J3000(H25)[15V or less]. Please reference the following website for guidelines on PSE regulations:
GlobTek, Inc.	<a href="http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/">http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/</a>
	JAPAN TUV R-PSE, Cert. No. JD 50313287, to J60950-1(H26) , J55022(H22),J3000(H25)[DC15?30V]. Please reference the following website for guidelines on PSE regulations:
GlobTek, Inc.	<a href="http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/">http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/</a>
	JAPAN TUV R-PSE, Cert. No. JD 50313287, to J60950-1(H26) , J55022(H22),J3000(H25)[DC30?60V]. Please reference the following website for guidelines on PSE regulations:
GlobTek, Inc.	<a href="http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/">http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/</a>
<b>EFFICIENCY LEVEL</b> 	Efficiency: complies to section 301 of Energy Independence and Security Act (EISA) complies with Energy Star tier 2 (North America), ECP tier 2 (China), MEPS tier 2 (Australia), Code of Conduct (Europe)
LPS	Limited Power Source (under 6A)
	NOM (Mexico) to NOM-001-SCFI-1993 GTM41133-9016-1.0-T3A
	JAPAN TUV Rheinland-PSE GlobTek Inc to J60950-1(H26) , J55022(H22),J3000(H25).Please follow the procedure listed in the following link for proper import to Japan: <a href="http://en.globtek.com/importing-to-japan.php">http://en.globtek.com/importing-to-japan.php</a> .
GlobTek, Inc.	
 <b>SAA-170038-EA</b>	RCM certificate SAA-170038-EA; Australia and New Zealand Regulatory Compliance, Mark ( <a href="http://rcm.standards.org.au/rcmfaq/rcmfaq.htm">http://rcm.standards.org.au/rcmfaq/rcmfaq.htm</a> )
RoHS	Specifications of directive 2011/65/EU Annex VI (ROHS-2) with amendment 2015/863-EU (ROHS-3) <a href="http://www.ce-mark.com/Rohs%20final.pdf">http://www.ce-mark.com/Rohs%20final.pdf</a>
 Intertek	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 ( <a href="http://www.intertek.com/marks/s/">http://www.intertek.com/marks/s/</a> )
 Intertek IEC60950-1	Semko S-Mark-Cert-EN60601-1 3rd Edition ( <a href="http://www.intertek.com/marks/s/">http://www.intertek.com/marks/s/</a> )
 H005 17	Serbia Approval - Conformity mark must be at least 5 mm high.
 170115-12	Singapore 170115-12 GTM41133-9016-1.0-T3A IEC60950-1:2005 + A1:2009 + A2:2013

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Ukraine UKRSePro (Document: [www.globtek.com/html/iso\\_certificates/GT\\_Ukraine.pdf](http://www.globtek.com/html/iso_certificates/GT_Ukraine.pdf))

Japan: Voluntary Control Council for Interference (VCCI)

WEEE: Complies with EU 2012/19/EU ([http://ec.europa.eu/environment/waste/wEEE/index\\_en.htm](http://ec.europa.eu/environment/waste/wEEE/index_en.htm))

Mark is on the label or Molded in the case